

A B S T R A C T

PROCESS FOR MAKING A LINEAR ALPHA-OLEFIN OLIGOMER
USING A HEAT EXCHANGER

The invention pertains to a process for making a linear alpha-olefin oligomer in a reactor comprising a liquid and a gas phase, comprising the steps of catalytically oligomerizing ethylene in the presence of a
5 nickel, palladium, cobalt, titanium, zirconium, hafnium, vanadium, chromium, molybdenum or tungsten complex, to an alpha-olefin oligomer which preferably has an average molecular weight between 50 and 350 under release of heat, and removing the heat with a heat exchanger, which
10 is not in direct contact with the liquid phase, using at least part of the gas phase as a coolant medium. The invention further relate to an apparatus to perform said process.